

Amendments to the Drawings:

The attached sheet of drawings includes a new Figure 30. Figure 30 shows a network path having two segments. The new Figure 30 finds support throughout the Specification, such as at page 5, line 12. Accordingly, no new matter has been added by the new Figure 30.

REMARKS/ARGUMENTS

Claims 1-47 were pending in this application. Within the Office Action, the drawings are objected to; claims 1-47 are rejected under 35 U.S.C. § 112, second paragraph; claims 1-4, 17, 24-27, and 40 are rejected under 35 U.S.C. § 102(e); and claims 5-16, 18-23, 28-39, and 41-47 are rejected under 35 U.S.C. § 103(a). By way of the above amendments, claims 2, 3, 22, 23, 25-45, and 47 have been amended. Accordingly, claims 1-47 are still pending. The Applicants respectfully request reconsideration in light of the amendments made above and the arguments made below.

Objection to the Drawings

Within the Office Action, the drawings are objected to under 37 C.F.R. § 1.83(a). Specifically, it is stated that the drawings do not show first and second segments as recited in claims 1 and 24. In response to this objection, Figure 30 has been added to show a network path containing first and second segments, as recited in claims 1 and 24. The first and second segments shown in Figure 30 are sufficiently described in the application as filed, such as at page 5, line 13, and the original claim 1. Accordingly, no new matter has been added by Figure 30.

Rejections under 35 U.S.C. § 112, first paragraph

Within the Office Action, it is stated that claims 1-47 are rejected under 35 U.S.C. § 112, first paragraph on two grounds: First, claims 1 and 24 recite a first and a second segment, but there is insufficient guidance in the application about what a segment is. Second, there is no support for the limitation in claims 1 and 24 of adding the first and second metric to achieve a “third metric of the same network parameter.” The Applicants respectfully traverse these rejections.

There is sufficient guidance to understand to what “segment” means.

The preamble to claim 1 recites “A method for characterizing the quality of a network path, including a first segment and a second segment.” Claim 1, by itself, gives sufficient guidance about what a segment is: it is a portion of a network path. At page 2, lines 3-6, the Specification summarizes the invention and the relevance of segments: “This metric [for characterizing the quality of a network path] is also additive, in the sense that given a network path that includes a first segment and a second segment, the metric score across the network path is equal to the sum of the metric score across the first segment, and the metric score across the

second segment.” (See also, page 9, lines 21-23) The specification and claim 1, either alone or together, give sufficient guidance about what a segment is.

Similarly, claim 24 recites “a network path including a first segment and a second segment.” Again, the specification and claim 24, either alone or together, give sufficient guidance about what a segment is.

The first and second segments recited in the independent claims 1 and 24, and thus in the dependent claims 2-23 and 25-47, are clearly understood by one skilled in the art. Accordingly, the rejection of claims 1-47 on the grounds that the term “segment” cannot be understood by one skilled in the art should be withdrawn.

The Specification contains support for the third metric.

Within the Office Action, it is stated that there is no support in the Specification for the addition of a first and second metric, “wherein the result is a third metric of the same network parameter” (underlining in Office Action). As accurately recited elsewhere in the Office Action, claim 1 actually recites, in part, “wherein the third metric is at least partly the function of the same plurality of one or more elementary network parameters of the network path.” Thus, the Office Action concludes that there is no support in the Specification for calculating a first metric using some network parameters, calculating a second metric using the same metric parameters, and then calculating a third metric by adding the first and second metrics using the same network parameters. The Applicants respectfully traverse this rejection.

At page 9, lines 13-18, the Specification gives one example that discusses the computation of a third metric (described as a “total metric”) in accordance with the present invention:

[A]ssume a path includes two links, L_1 and L_2 . The one-way delay and loss across link L_1 are denoted D_1 and l_1 , while the delay and loss across link L_2 are denoted D_2 and l_2 , respectively. We also define $metric_1$ and $metric_2$ to be the resulting metrics on $Link_1$ and $Link_2$, respectively, while the total metric *metric* is set to $metric_1 + metric_2[sic] = D_1 + D_2 + \delta_v(l_1 + l_2)$.

Here, the Specification gives support for the limitation of a third metric (here, the “total metric”), using the same network parameters as used to determine the first and second metrics (here, delay and loss) as recited in claims 1 and 24. Accordingly, the rejection of claims 1 and 24, and their dependent claims 2-23 and 25-47, on the grounds that the third metric finds no support in the

Specification should be withdrawn.

Rejections under 35 U.S.C. § 102(e)

Within the Office Action, claims 1-4, 17, 24-27, and 40 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 7,065,584 to Shavitt et al. The Applicants respectfully traverse these rejections.

Shavitt is directed to a method of mapping a network. Shavitt discloses providing distance measurements between measurement stations called tracers, determining routes along which the distance measurements are taken, and creating a system of equations that link distance measurements between nodes with a sum of delays between the nodes. (Shavitt, Abstract)

At column 5, lines 25-46, Shavitt describes taking measurements between nodes on a network to generate linear equations. The linear equations are then solved to determine delays along parts of the network. In other words, Shavitt discloses determining delays along a total path to determine delays along portions of the path. In contrast, embodiments of the present invention generate metrics along multiple segments and then add them to determine a metric for the total path, the reverse of what Shavitt discloses.

At column 6, lines 20-25, Shavitt discloses a set of linear equations and teaches simplifying them to determine which are solvable.

Claim 1 is directed to a method of characterizing a quality of a network path that includes a first segment and a second segment. The method recites, in part, accessing a first metric and a second metric, both of which are at least in part quality characterizations of a same plurality of one or more network applications. The method also recites adding the first metric and the second metric to generate a third metric, which is at least partly the function of the same plurality of one or more elementary network parameters of the network path. As explained above, Shavitt does not disclose adding first and second metrics, as recited in claim 1. For at least this reason, claim 1 is allowable of Shavitt.

Claims 2-4 and 17 all depend on claim 1. Accordingly, claims 2-4 and 17 are all allowable as depending on an allowable base claim.

Claim 24 is directed to a network system that includes a plurality of one or more network devices. Each network device is configured such that if it is coupled to at least a network path including a first segment and a second segment, the plurality of one or more network devices access a first metric and a second metric, both of which are at least in part quality characterizations of a same plurality of one or more network applications. The first metric and

the second metric are at least partly a function of a same plurality of one or more elementary network parameters. The network device is also configured to add the first metric and the second metric to generate a third metric, which is at least partly the function of the same plurality of one or more elementary network parameters of the network path.

Claim 24 thus recites adding a first and second metric to generate a third metric, such as recited in the method claim 1. Thus, claim 24 is allowable over Shavitt for at least the same reasons that claim 1 is allowable.

Claims 25, 26, and 40 all depend on claim 24. Accordingly, claims 25, 26, and 40 are all also allowable as depending on an allowable base claim.

Rejections under 35 U.S.C. § 103(a)

Claim 5-16, 18-21, 28-39, and 41-44

Within the Office Action, claims 5-16, 18-21, 28-39, and 41-44 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Shavitt in view of what was well-known in the art. The Applicants respectfully traverse these rejections.

As explained above, claims 1 and 24 are both allowable over Shavitt. Claims 5-16 and 18-21 all depend on claim 1, and claims 28-39 and 41-44 all depend on claim 24. Accordingly, claims 5-16, 18-21, 28-39, and 41-44 are all allowable as depending on an allowable base claim.

Claims 22, 23, and 45-47

Within the Office Action, claims 22, 23, and 45-47 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Shavitt in view of U.S. Patent No. 7,002,917 to Saleh. The Applicants respectfully traverse these rejections.

Saleh is directed to a method of finding a path in a network. Saleh discloses determining minimum-hop and minimum cost paths. Saleh does not disclose using metrics based on quality characterizations of one or more network applications. Accordingly, Saleh does not disclose adding first and second metrics, based on quality characterizations, to produce a third metric, as recited in claims 1 and 24. As described above, Shavitt does not disclose these elements either. Thus, claims 1 and 24 are both allowable over the Shavitt, Saleh, and their combination.

Claims 22 and 23 depend on claim 1, and claims 45-47 depend on claim 24. Accordingly, claims 22, 23, and 45-47 are all also allowable as depending on allowable base

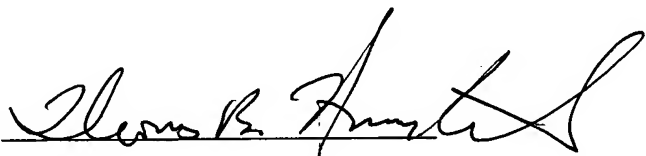
claims.

CONCLUSION

For the reasons given above, the Applicants respectfully submit that claims 1-47 are in condition for allowance, and allowance at an early date would be appreciated. If the Examiner has any questions or comments, the Examiner is encouraged to call the undersigned at (408) 530-9700 so that any outstanding issues can be quickly and efficiently resolved.

Respectfully submitted,
HAVERSTOCK & OWENS LLP

Dated: 9-27-06

By: 

Thomas B. Haverstock
Reg. No.: 32,571
Attorneys for Applicants

CERTIFICATE OF MAILING (37 CFR § 1.8(a))

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited with the U.S. Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the: Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450

HAVERSTOCK & OWENS LLP

Date: 9/27/06

